



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/701,496

11/06/2003

Yutaka Tosaki

Q78309

7626

65565 7590 07/09/2009
SUGHRUE-265550
2100 PENNSYLVANIA AVE. NW
WASHINGTON, DC 20037-3213

EXAMINER

DESAI, ANISH P

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

07/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/701,496	Applicant(s) TOSAKI ET AL.	
	Examiner ANISH DESAI	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments in response to the Office action dated 12/17/08 have been fully considered.
2. The 35 USC Section 112-second paragraph rejections are withdrawn in view of the present amendment and response.
3. The 35 USC Section 103(a) rejections based on Lucast et al. (WO00/78884) in view of Coopriider et al. (US 5,571,617), and further as evidenced by Istvan Benedek and Luck J. Heymans (*Pressure-Sensitive Adhesive Technology*, Marcel Dekker Inc., Chapter 8, page 412, 1997) are withdrawn in view of applicant's amendment and response.
4. In view of applicant's amendment, a new 35 USC Section 112-first paragraph rejection is made.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6. With respect to the newly added limitation of "homopolymer of polyalkylene glycol", it is submitted that while there is support to recite "homopolymer of polyethylene glycol" or "homopolymer of polypropylene glycol" (see page 28, first full paragraph of the specification as originally filed), there is no support to broadly recite "homopolymer of polyalkylene glycol" which would encompass all of the homopolymers for which there is no support.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over on Lucast et al. (WO00/78884) in view of Coopridner et al. (US 5,571,617), Imamura et al. (US 5,783,209), and further as evidenced by Istvan Benedek and Luck J. Heymans (*Pressure-Sensitive Adhesive Technology*, Marcel Dekker Inc., Chapter 8, page 412, 1997). US 6,518,343B1 to Lucast et al. is relied upon as equivalent document for WO 00/78884.

8. With regards to claim requirement of concentration of the surfactant in a surface portion of the PSA layer within the range of up to 3 nm inward from the outer face of the PSA layer being 0.1 to 3 parts by weight, it is respectfully submitted that the claim language is open to the presence of a surfactant in the entire PSA layer. The claim language does not require concentration gradient of surfactant in the PSA. Therefore, a PSA layer having weight% of surfactant as claimed by Applicant can be interpreted to meet Applicant's claimed requirement of "in a surface portion of the pressure-sensitive adhesive layer within the range of up to 3 nm inward from the outer face of the pressure-sensitive adhesive layer...sulfur atom is contained in a proportion of from 0.1 to 3 parts by weight based on 100 parts by weight of the whole of the monomer components constituting the acrylic polymer (A) that forms the surface portion of the pressure-sensitive adhesive layer".

9. Lucast discloses a wet-stick pressure-sensitive adhesive tape, wherein the PSA can be adhered to both wet and dry surfaces (abstract and column 3 lines 5-15). With respect to Applicant's claimed acrylic polymer (A) the disclosure of Lucast at column 4 lines 40-68 beginning at "(Meth)acrylate monomers" meets Applicant's acrylic polymer (A).

Art Unit: 1794

10. Regarding claim 1, Lucast is silent as to teaching “in a surface portion of the pressure-sensitive adhesive layer within the range of up to 3 nm inward...0.1 to 3 parts by weight based on 100 parts by weight of the whole of the...constituting acrylic polymer (A) that forms the surface portion of the pressure-sensitive adhesive layer” and the hydrophilic polymer (C) as presently claimed.

11. However, Cooprider discloses a coated sheet material comprising a backing and a coating of repositionable PSA (abstract). Further, aqueous dispersion based PSA of Cooprider comprises (A) plurality of polymeric, solid elastomeric microspheres that are reaction product of reactants comprising at least one C4-C14 alkyl (meth)acrylate monomer and at least one comonomer (acrylic polymer containing a (meth)acrylic acid C4-C12 alkyl ester) (column 1 lines 45-56 and column 4 lines 1-65), (B) anionic surfactant (emulsifier) containing sulfur atom (e.g. sodium lauryl sulfate at column 6 line 39). Moreover, at column 1 lines 60-67, Cooprider discloses addition of surfactant in an amount no greater than about 5 parts by weight per 100 parts by weight of [acrylic] microspheres, preferably about no greater than 3 parts by weight and most preferably in the range of 0.1 to about 1.5 parts by weight per 100 parts by weight of the [acrylic] microspheres.

12. It is noted that the primary reference of Lucast discloses PSA tape that is formed of acrylic based PSA. The secondary reference of Cooprider discloses PSA that is formed of acrylic adhesive, and further Cooprider disclose addition of surfactants such

as anionic surfactant (e.g. Applicant's sodium lauryl sulfate) in the amount as contemplated by Applicant (see column 6 lines 30-40 and Example 1).

Evidence Reference Istvan Benedek and Luc J. Heymans (Pressure-Sensitive Adhesive Technology, Marcel Dekker Inc., Chapter 8, page 412, 1997)

13. The aforementioned evidence reference is relied upon to show that virtually for all uses of PSAs the surface energy of the adhesive is much lower than that of the adherent, which is a condition for good wetting. In order to improve the coating properties (i.e. wetout) of PSA, surfactants are added to the formulation (see page 412 provided by the Examiner).

14. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the anionic surfactant such as sodium lauryl sulfate in the amount as taught by Coopridier in the PSA of Lucast, motivated by the desire to improve the coating properties (i.e. wetout) of the PSA of Lucast such that it can be applied to a substrate surface.

15. Lucast as modified by Coopridier is silent as to teaching the hydrophilic polymer (C) as presently claimed.

16. However, Imamura discloses a medical pressure-sensitive adhesive (abstract). Additionally, at column 6 lines 20-30, Imamura discloses that one can add hydrophilic polymer particles such as that of required by Applicant's claims (i.e. polyvinyl alcohol

Art Unit: 1794

and polyvinyl pyrrolidone) in the amount of 0.1 to 30% by weight to the PSA in order to increase water absorbing power of the PSA, suitable adhesive strength, and cohesive force of the PSA.

17. It is noted that the primary reference of Lucast at column 9 lines 10-21 discloses that one can add additive in the adhesive mixture in the amounts sufficient to obtain desired end-use properties. Moreover, Lucast's adhesive tape can be used in the medical field (column 1 lines 15-25). Further, while the additives of Lucast as taught at column 9 lines 10-11 can be added in the polymerizable mixture, said additive can also be added **at the time of coating to change the properties of the adhesive**. This disclosure of Lucast that the additives can be added at the time of coating in combination with the disclosure of Imamura relating to addition of hydrophilic polymer particles to the PSA is interpreted to meet the claim limitation of "wherein the hydrophilic polymer is added as an aqueous solution after the polymerization of the acrylic polymer" as presently claimed.

18. Alternatively, the aforementioned claim limitation is a product by process limitation. Product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. "Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious

from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir.1985).

19. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). The Examiner submits that based on the collective disclosure of Lucast, Cooprider and Imamura as set forth above, the PSA tape of Lucast as modified by Cooprider and Imamura is structurally and functionally equivalent.

20. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the hydrophilic polymer particles of Imamura in the amount as taught by Imamura in the PSA of Lucast as modified by Cooprider, motivated by the desire to increase the water absorbing power of the PSA,, and to provide PSA with suitable adhesive strength and cohesive force.

21. As to the claimed requirement of the concentration of the anionic emulsifier within the range of up to 3 nm inward from the outer face of the PSA layer in proportion of from 0.1 to 3 parts by weight based on 100 parts by weight of the whole monomer constituting the acrylic polymer (A) and the ration of sulfur element by the ESCA

measurement is less than 1 atomic%, it is reasonable to presume that said feature is present in the invention of Lucast as modified by Coopridier and Imamura.

22. The support for said presumption is based on the fact that the PSA of Lucast as modified by Coopridier and Imamura comprises a PSA having anionic surfactant in the amount as claimed by Applicant (see Examiner's reasoning above). Further, as previously noted claim language is open to the presence of a surfactant in the entire PSA layer. ***The claim language does not require concentration gradient of surfactant in the PSA.*** Therefore, a prior art PSA layer having the weight% of surfactant as claimed by Applicant can be interpreted to meet Applicant's claimed requirement of "in a surface portion of the pressure-sensitive adhesive layer within the range of up to 3 nm inward from the outer face of the pressure-sensitive adhesive layer...sulfur atom is contained in a proportion of from 0.1 to 3 parts by weight based on 100 parts by weight of the whole of the monomer components constituting the acrylic polymer (A) that forms the surface portion of the pressure-sensitive adhesive layer".

23. It is respectfully submitted that based on above facts, the PSAs of Applicant and that of Lucast as modified by Coopridier and Imamura are similar in composition. Thus, the aforementioned feature would necessarily be present in the invention of Lucast as modified by Coopridier and Imamura.

24. With respect to claim 5, it is respectfully submitted that the recitation of "multilayered" PSA does not require that each PSA layer of the "multilayered" PSA be

Art Unit: 1794

separate and distinguishable from each other, and the claim language does not preclude the presence of the anionic emulsifier (B) in other layers of the multilayered PSA. Thus, a single PSA layer of the prior art is interpreted as capable of reading on the "multilayered" PSA as presently claimed. Accordingly, as set forth previously the secondary reference of Cooprider discloses addition of surfactant in an amount no greater than about 5 parts by weight per 100 parts by weight of [acrylic] microspheres, preferably about no greater than 3 parts by weight and most preferably in the range of 0.1 to about 1.5 parts by weight per 100 parts by weight of the [acrylic] microspheres.

25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the anionic surfactant such as sodium lauryl sulfate in the amount as taught by Cooprider, in the PSA of Lucast, motivated by the desire to improve the coating properties (i.e. wetout) of the PSA of Lucast such that it can be easily applied to a substrate surface.

26. As to claim 7, it is noted that application of PSA tapes of Lucast is in the field of adhesive bandages (see column 11 lines 20-25). Thus, the Examiner respectfully submits that use of porous substrates (backings) is well known in adhesive bandages, motivated by the desire to provide breathability to the adhesive bandage.

Response to Arguments

27. Applicant's arguments filed 04/06/09 have been fully considered.
28. On pages 6-7 of Applicant's amendment, Applicant argues that Lucast teaches "nonreactive poly(alkylene oxide) copolymer" where the claims require homopolymer of polyalkylene glycol (i.e. one of the hydrophilic polymers C of claimed invention).
29. The Examiner submits that he is no longer relying on Lucast to teach or suggest this limitation of hydrophilic polymer C; instead as set forth in this Office action, Imamura is relied upon to render this limitation as being obvious.
30. On page 7 of Applicant's amendment, Applicant argues that "Moreover, when the polyacrylic acid (hydrophilic polymer) is added before the polymerization of the acrylic polymer, the amount of...This point was established in the previously submitted...It is apparent that polyethylene glycol, which also acts as a hydrophilic polymer, shows the same behavior."
31. The Examiner respectfully submits that said arguments are not commensurate in scope with the basis of the rejection since Imamura reference is used to render obvious hydrophilic polymer such as PVOH and polyvinyl pyrrolidone which are also encompassed by the scope of the present claims. Additionally, the Examiner submits that Applicant has provided no factual evidence to support his/her assertion that polyethylene glycol will also show the same behavior.

Conclusion

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

33. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 1794

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1794